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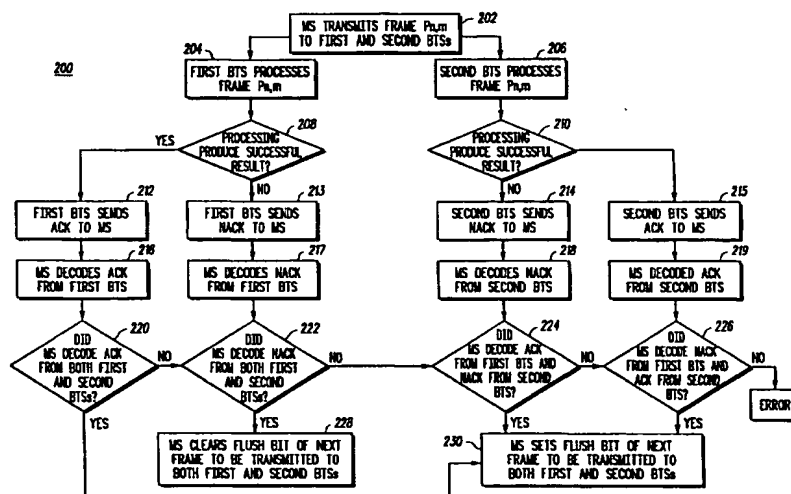
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09/705,850 3 November 2000 (03.11.2000) US(71) Applicant: **MOTOROLA, INC.** A corporation of the State of Delaware [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).(72) Inventors: **GHOSH, Amitava**; 289 Hunter Court, Vernon Hills, IL 60061 (US). **JALLOUL, Louay**; 1501 Churchill Drive, Apt. 104, Palatine, IL 60067 (US).(74) Agents: **WILLIAMS, Lalita, P.** et al.; Motorola, Inc., Intellectual Property Dept., 1303 East Algonquin Road, Schaumburg, IL 60196 (US).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**Published:**

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(54) Title: CLOSED LOOP METHOD FOR REVERSE LINK SOFT HANDOFF HYBRID AUTOMATIC REPEAT REQUEST



(57) Abstract: A method of combining soft-handoff with a hybrid ARQ scheme to maximize throughput and gain in a communications system. After receiving a frame from the MS (110), the BTSs (104 and 106) will process the frame and communicate to the MS over a forward control channel whether the frame contained any errors. If all BTSs communicate that the frame contains errors, the MS will retransmit the same frame to all BTSs with a flush bit set to instruct the BTSs 104 and 106 to combine the retransmitted frame with the original frame. If only some BTSs communicate that the frame contains errors, the MS will transmit the next frame to all BTSs that successfully decoded the frame with the flush bit set to instruct the BTSs to erase the previous frame from memory and not to combine the previous frame with the current frame. The MS will retransmit the frame to the BTSs that did not successfully decode the frame with the flush bit set to instruct the BTSs to combine the previous frame with the retransmitted frame.